

REMARKS

Claims 24-45 remain in this application. No claims are added, cancelled, or amended. The Applicants respectfully request reconsideration of this application in view of the above amendments and the following remarks.

35 U.S.C. §102(e) Rejection - Kasamatsu

The Examiner has rejected claims 24-25, 27-29, 31-34 and 41-42 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,288,833 issued to Kasamatsu (hereinafter “Kasamatsu”). The Applicants respectfully submit that the above-identified claims are allowable over Kasamatsu.

Kasamatsu does not disclose light sources to emit light into the waveguide in a direction **substantially transverse** to a direction of propagation of the optical signal through the waveguide as substantially recited in claims 24, 28, 33, and 39 and their respective dependent claims. In Kasamatsu, the exciting ray 17 apparently crosses the single-mode waveguide 12, however this is due to **reflection**. The multi-mode lasers 19 do not **emit** light into the single-mode waveguide 12 in a direction that is substantially transverse to a direction of propagation of the optical signal through the single-mode waveguide. Rather, as clearly shown in FIG. 5-7, the wave adder 20 combines the multi-mode waveguides 21 so that the exciting rays are essentially **co-propagating** with the induced radiation ray in the single-mode waveguide 12. By way of example, FIG. 1 of the present application shows the same **co-propagating** direction (see e.g., page 1, line 21 of the present application).

In the Examiners Response to Arguments, the Examiner stated “*figure 5 of Applicant's specification discloses what is meant by 'substantially transverse'*” (see page 5 of present Office Action). Applicants respectfully submit that the Examiner may be

misinterpreting FIG. 5. As clearly explained on page 6 of the present application, FIG. 5 shows a graph showing optical signal power plotted on the vertical axis versus propagation distance through the waveguide on the horizontal axis. For clarity, the illustrated angle between the optical signal 200 and the pump power 202 does not change the meaning of the term “substantially transverse”.

The Examiner is reminded that anticipation under 35 U.S.C. Section 102 requires every element of the claimed invention be identically shown in a single prior art reference. The Federal Circuit has indicated that the standard for measuring lack of novelty by anticipation is **strict identity**. *“For a prior art reference to anticipate in terms of 35 U.S.C. Section 102, every element of the claimed invention must be identically shown in a single reference.”* In Re Bond, 910 F.2d 831, 15 USPQ.2d 1566 (Fed. Cir. 1990).

For at least these reasons, claims 24, 28, 33, and 39 and their respective dependent claims are believed to be allowable over Kasamatsu.

35 U.S.C. §103(a) Rejection – Kasamatsu in view of Lange

The Examiner has rejected claims 26, 30, 36 and 40 under 35 U.S.C. §103(a) as being unpatentable over Kasamatsu in view of U.S. Patent No. 6,594,420 issued to Lange (hereinafter “Lange”). Without admitting the appropriateness of combining these two references, the Applicants respectfully submit that the above-identified claims are allowable over any combination of Kasamatsu and Lange.

Any combination of Kasamatsu and Lange does not teach or suggest light sources to emit light into the waveguide in a direction **substantially transverse** to a direction of propagation of the optical signal through the waveguide as substantially recited in claims 24, 28, 33, and 39 and their respective dependent claims. Kasamatsu does not teach or

suggest these limitations. The discussion above is pertinent to this point. Neither does Lange teach or suggest these limitations. This is clearly shown in FIGS. 6, 8, and 10-12 of Lange, in which the pumping energies are not brought in transverse to the direction of propagation of the light in the corresponding waveguides.

For at least these reasons, claims 24, 28, 33, and 39 and their respective dependent claims are believed to be allowable over any combination of Kasamatsu and Lange, which may not even be combinable.

Kasamatsu in view of Lawrence

The Examiner has rejected claims 35 and 43-45 under 35 U.S.C. §103(a) as being unpatentable over Kasamatsu in view of U.S. Patent No. 6,289,027 issued to Lawrence et al. (hereinafter “Lawrence”). Applicants respectfully submit that the above-identified claims are allowable over any combination of Kasamatsu and Lawrence.

Firstly, Kasamatsu and Lawrence should not be combined. Kasamatsu discusses a waveguide that receives light from the edge and provides light from the edge. LLL discusses a waveguide that receives light from the top and couples the light downward into an optical fiber. For at least these reasons, Applicants submit that Kasamatsu and Lawrence should not be combined.

Secondly, even if Kasamatsu and Lawrence are combined, which doesn’t even seem appropriate, the combination still does not teach or suggest light sources to emit light into the waveguide in a direction **substantially transverse** to a direction of propagation of the optical signal through the waveguide as substantially recited in claims 24, 28, 33, and 39 and their respective dependent claims. Kasamatsu does not teach or suggest these limitations. The discussion above is pertinent to this point. Neither does Lawrence teach or suggest these limitations. With reference to the embodiment shown in

FIG. 3 of the present application, the waveguide may propagate an optical signal along the direction of the illustrated arrows. However, no optical signal is propagated through the overlay waveguides of Lawrence in a direction of propagation that is transverse to light from a light source.

For at least these reasons, claims 24, 28, 33, and 39 and their respective dependent claims are believed to be allowable over any combination of Kasamatsu and Lawrence, which may not even be combinable.

Drawings

The Examiner has objected to a so-called replacement drawing sheet filed with the amendment dated October 25, 2004. The sheet submitted was not a replacement drawing sheet. Rather, the sheet was a part of the Response to the Office Action and included a comparison of FIG. 4 of the present application with FIG. 5 of Kasamatsu and with FIG. 10 of Lange. To comply with the requirements, Applicants respectfully submit herein a full set of replacement drawings, which do not include FIG. 5 of Kasamatsu and with FIG. 10 of Lange. Therefore the rejection should be withdrawn.

Conclusion

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance. Applicants respectfully request that the rejections be withdrawn and the claims be allowed at the earliest possible date.

Request For Telephone Interview

The Examiner is invited to call Brent E. Vecchia at (303) 740-1980 if there remains any issue with allowance of the case.

Request For An Extension Of Time

The Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

Charge Our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 4-14-05

Brent E. Vecchia
Brent E. Vecchia
Reg. No. 48,011

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1030
(303) 740-1980